Texas Tone® Tweed D5E Owner's Manual

Congratulations!

You are now the proud owner of the Texas Tone® Tweed D5E tube amplifier. The Texas Tone D5E is a highly portable 12-Watt combo amp that can get that sweet and creamy tube crunch, perfect for Indie, blues, country, pop, and rock, whether on stage, in the studio, or at home. It loves to be played wide open, controlled by the guitarist's hands!

The D5E is our refined take on the legendary 5E3 Tweed Deluxe — built for players who crave vintage touch sensitivity but demand stage-ready reliability and versatility. We've kept the heart of the original, tamed its bad habits, and added subtle tweaks that make it a joy in both the studio and on stage.

Thank you for choosing Texas Tone!

READ, FOLLOW, HEED, AND KEEP ALL INSTRUCTIONS AND WARNINGS.

CAUTION: RISK OF ELECTRIC SHOCK, DO NOT OPEN OR REMOVE CHASSIS!

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT REMOVE REAR COVER. NO USER-SERVICEABLE PARTS INSIDE.

- **WARNING**: THIS UNIT REQUIRES SAFETY GROUNDED 120VAC 60Hz. ONLY CONNECT POWER CORD TO A POLARIZED, SAFETY GROUNDED OUTLET WIRED TO CURRENT ELECTRICAL CODES AND COMPATIBLE WITH VOLTAGE, POWER, AND FREQUENCY REQUIREMENTS STATED ON THE REAR PANEL OF THE AMPLIFIER.
- **WARNING**: THIS AMPLIFIER PRODUCES HIGH DC VOLTAGE (~400+ VDC). DO NOT REMOVE THE CHASSIS OR OPERATE WITH THE CHASSIS REMOVED.
- SERVICE TO BE PERFORMED BY QUALIFED PERSONNEL ONLY.
- DO NOT OPERATE NEAR ANY HEAT SOURCE AND DO NOT BLOCK ANY VENTILATION OPENINGS ON THIS AMPLIFIER. FOR PROPER OPERATION, THIS UNIT REQUIRES 3" (75mm) OF WELL-VENTILATED SPACE AROUND HEATSINKS AND OTHER AIR FLOW PROVISIONS IN THE CABINET.
- **WARNING**: TO REDUCE THE RISK OF ELECTRIC SHOCK OR FIRE, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. DO NOT USE THIS AMPLIFIER NEAR SPLASHING, FALLING, SPRAYING, OR STANDING LIQUIDS.
- CLEAN ONLY WITH LINT-FREE DAMP CLOTH AND DO NOT USE CLEANING AGENTS.
- PROTECT THE POWER CORD FROM DAMAGE DUE TO BEING WALKED ON, PINCHED, OR STRAINED.
- UNPLUG THE AMPLIFIER DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME.
- ONLY USE ATTACHMENTS, ACCESSORIES, STANDS, OR BRACKETS SPECIFIED BY THE MANUFACTURER FOR SAFE OPERATION AND TO AVOID INJURY.
- OUR AMPLIFIERS ARE CAPABLE OF PRODUCING HIGH SOUND PRESSURE LEVELS. CONTINUED EXPOSURE TO HIGH SPL CAN CAUSE PERMANENT HEARING DAMAGE. USER CAUTION IS ADVISED, AND EAR PROTECTION IS RECOMMENDED IF UNIT IS OPERATED AT HIGH VOLUME.

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The Texas Tone® Tweed D5E

While the Texas Tone Tweed D5E is inspired by the dynamic performance of the Fender® tweed Deluxe 5E3, we have added some unique touches and modern safety and construction methods.

The Fender 5E3 Tweed Deluxe is a legendary amp, known for its touch sensitivity and harmonically rich breakup, but it also has some quirks (and outright flaws) that owners and builders often experience. Many of these are the result of its original late-'50s design rather than wear or damage.

Here's a breakdown of **common issues and traits**:

1. **Uneven frequency Response & Excessive Low-End Flub:** Loose, and sometimes "farty" response, especially with bass-heavy guitars or aggressive picking. At higher volumes, especially with humbuckers - the bass can get loose and muddy.
2. **Limited Clean Headroom:** Breaks up early, often around 3–4 on the dial.
3. **Harsh Overdrive:** Harshness or fizz when cranked past 8–9.
4. **Noisy Operation:** Hiss, hum, crackling, and ringing.
5. **Short Tube Life Due to Heat & Component Stress:** Overbiased tubes and under-spec'd components.

In Short

Texas Tone Tweed D5E addresses the flubby bass, low headroom, and heat management while keeping the core feel of the original 5E3 circuit. We fix the above issues while retaining the core characteristics of the tweed Deluxe sound – the touch sensitivity and harmonics galore.

Texas Tone Tweed:

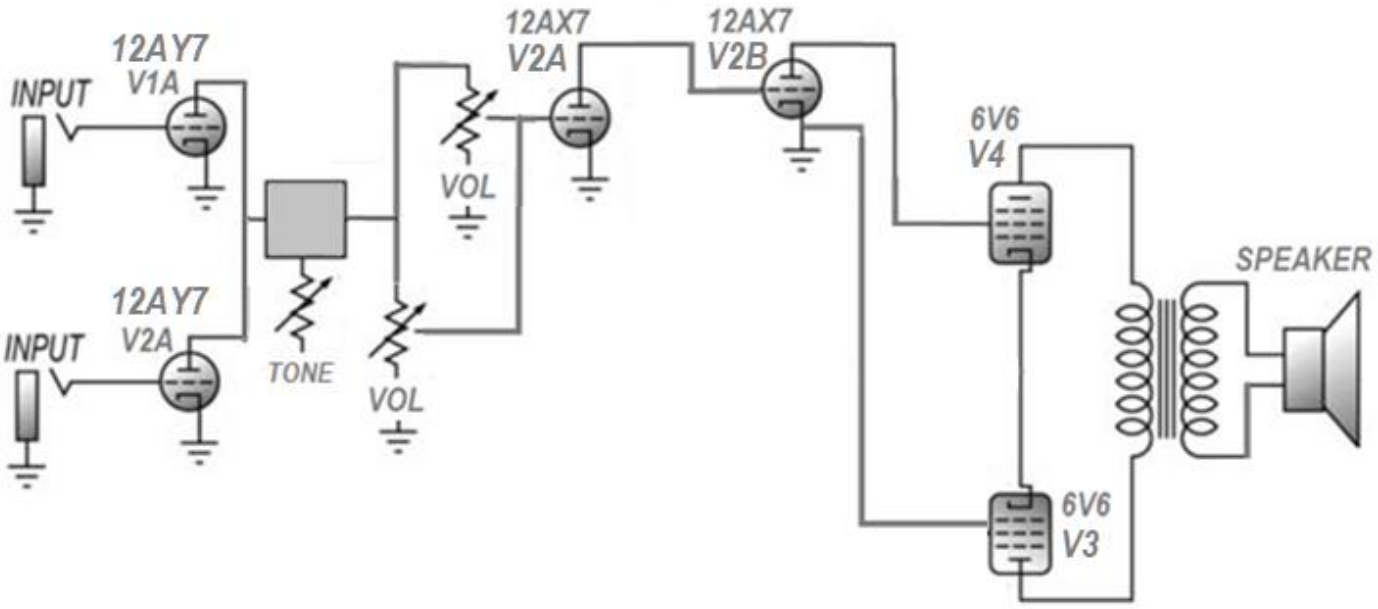
Through careful component selection, we eliminate the noise, the uneven frequency response, and the short tube life.

- A robust electrical engineering grounding scheme, the use of shielded signal cables, and implementation of low-noise components effectively eliminate unwanted hiss and hum.
- Added screen grid resistors to the power tubes ensure longer tube life and component integrity.
- Shock-mounted preamp tube, low noise preamp tubes, and rugged power tubes with damping rings address microphonic and ringing tubes.
- Phase splitter mods provide smoother overdrive while keeping the original design intact.
- Reduced bass response eliminates the "farting out" while maintaining the 5E3 vibe.
- Higher quality and correct spec parts improve stability without changing the tone.
- Jensen C12Q 12" 35W speaker –Well rounded, straightforward tone with tight lows, mid bite and bright highs. Powerful enough for a cranked Deluxe-style amp, it has been used in both single and twin configurations by countless manufacturers including Fender®, Ampeg®, Silvertone® and Supro®, just to name a few.

Specific Features of the Texas Tone Tweed D5E:

- Shock-mounted first stage preamp tube.
- Enhance bandwidth.
- Cleaner preamp.
- Low-noise resistors
- Shielded signal cables.
- High quality low noise components throughout
- Hand-wired eyelet board
- Rugged steel chassis.

Block Diagram



The Front Panel (not shown) Left to Right:

1. **Standby switch**: The isolated Standby switch controls the high voltage to the tubes of the Texas Tone Tweed D5E. The Standby switch may also be used to quiet the amplifier for short periods.
2. **120 VAC Fuse Holder**: Use only a **3AG type Slow Blow 2 Amp** rated fuse. If the fuse blows, or the amplifier will not power on, consult a qualified tube amp technician.
3. **Power switch**: To turn on the amplifier, make sure that the Standby switch is in the "STANDBY" position, and then turn on the power switch. After sufficient time for the tubes to warm up, for about 15 seconds, turn on the Standby switch. To turn off the amplifier, place the Standby switch back to the STANDBY position, and switch off the Power switch.
4. **Indicator lamp**: The lamp will illuminate whenever the amplifier is plugged in to a 120VAC/60Hz power source and the Power switch is turned on.
5. **Tone Control**. Rotate clockwise for more treble/less bass, counterclockwise for less treble/more bass.
6. **Bright Channel Volume**: Turn clockwise for more volume, counterclockwise for less, or completely off.
7. **Normal Channel Volume**: Turn clockwise for more volume, counterclockwise for less, or completely off.
8. **INPUTS**: Texas Tone Tweed D5E has two common High and Low input jacks for each channel.
    a. **HIGH Input "1"**: This is the normal, high gain, high impedance (1MegΩ) input. Connect your guitar here by means of a shielded signal cable.
    b. **LOW Input (2)**: The "Low" input features a -6dB attenuation compared to the "High" Input. Use the low input for lower gain and quieter performance, or when using very high-gain pickups to gain more headroom before the onset of distortion. When both inputs are used at the same time, they offer the same gain characteristics.
    c. As the channels are interactive, the volume of the unused channel may have a small effect on the channel in use.
    d. **Both Channels**: A small jumper cable may be used to connect the Low (2) input of the channel in use to the High (1) input of the unused channel. In this way, both channels are active and the overall gain is increased. Dial in the tone you want on the primary channel and then blend in the secondary channel to suit your needs.

The Rear Panel (not shown) Left to Right:

1. **Line Cord**: The grounded power cord should only be plugged into a grounded power outlet that meets all applicable electrical codes and is compatible with 120 Volts AC, 60 Hz power. Do not attempt to defeat the safety ground connection.
2. **Rectifier tube V5**: A high-quality JJ Electronic "true" 5Y3GT provides high voltage rectification from AC to DC voltage. A silicone damper is used to help prevent tube ringing.
3. **Power output tubes V4 & V3**: Use only a matched pair of high-quality 6V6 tubes. A Premium Matched pair of JJ Electronic Double Mica 6V6S is standard. The power tubes use self-biasing cathode bias. There is no need to adjust the output tube bias. Silicone dampers are used to help prevent tube ringing
4. **Speaker connector**: The Texas Tone Tweed D5E internal speaker connects to a 1/4" 8Ω speaker output jack.

NOTE: Do not power on or operate the amplifier without a speaker plugged in! Damage will result.

5. **Voicing toggle switch**: Choose between three settings:
    a. **Rear facing**: Normal 5E3 operation with the 12AY7 stage 1 preamp tube.
    b. **Center position**: This setting reduces the gain of the 2nd stage preamp, and is useful for a cleaner signal, especially if a 12AX7 tube is used in V1, the 1st preamp stage, which has significantly more gain than a 12AY7.
    c. **Front facing position (closest to the speaker)**: This setting is the cleanest – reduced gain in 2nd stage preamp plus global negative feedback (NFB).
6. **V2**: A high quality ECC83S (12AX7) by JJ Electronic provides the second gain stage and phase splitter functions.
7. **V1**: A shock-mounted low-noise 12AY7 is the 1st gain stage for both channels. You may use 12AX7 or 5751 types, either of which provides more gain. In this case, the Voicing Toggle Switch may make a larger difference.
    a. **Relative gain** on a scale of 1 – 100:
        i. 12AX7 is "100"
        ii. 5751 is "70"
        iii. 12AY7 is "45"

Important Information about Guitar Amp Vacuum Tubes (Valves):

The sound produced by a tube-powered amplifier is significantly different from that produced by a solid-state amplifier with similar design specifications. When pushed past their limits, solid-state devices tend to go immediately into distortion.

Tubes, on the other hand, are non-linear devices that transition more smoothly into distortion, and produce a more musical set of harmonics, the intensity of which can be controlled by the player. This characteristic adds warmth and definition to the sound, which has become the hallmark of tube amplifiers. When tubes are driven into clipping, the harmonic overtones can be both sweet and pleasing, or intense and penetrating, depending on the musician's musical taste and playing technique.

Modern application engineers have designed several outstanding solid-state amplifiers that sound quite good. Some use modeling circuitry that enables them to simulate the distortion characteristics of a tube amplifier. Since the response of tubes is both dynamic and non-linear, the true range of characteristics of tube amplifiers can only be approximated. Modern tube amplifiers such as Texas Tone® amps, offer that classic, dynamic vintage sound in today's contemporary market.

Tube Types and Usage:

Preamp tube circuits amplify the signal from your instrument and shape the sound, and they can sometimes become microphonic (mechanically pick up and transmit external noises). Since these tubes are used in the critical first stages of a tube amplifier's circuitry, it is particularly important to use high quality, low noise/low microphonic tubes for this application. Although tubes of this quality may typically cost more than standard tubes, the improvement in performance is worth the investment, and in some cases, critical. Texas Tone Amps performs extensive testing and works with tube suppliers to determine the best tube for each position in the amplifier.

Preamplifier tubes are also used to drive the power tubes. The power tubes convert the low-level, conditioned signal from the preamplifier into a level that is sufficient to drive the speakers. There are several types of power tubes available, each of which offers a different performance/sound characteristic. The 6V6S power tubes used in the Texas Tone® Tweed D5E produce a full range, rich and creamy sound with nice distortion. Some tubes are available in matched sets. These tubes are extensively tested for optimum performance and longevity. Matched sets of power tubes are highly recommended. A Premium Matched pair of performance tested JJ Electronic Double Mica 6V6S tubes is standard on the Texas Tone Tweed D5E.

Tubes: Why (And When) To Replace Them:

Tubes are made of several fragile mechanical components that are vacuum sealed in a glass envelope. The longevity of a tube depends upon several factors, including how hard and often the amplifier is played, vibration from the speakers, road travel, repeated set up and tear down, etc. Any time you notice a change in your amplifier's performance, check the tubes first.

If it has been a while since the tubes were replaced and the sound from your amplifier lacks punch, fades in and out, loses highs or lows or produces unusual sounds, the power tubes may need replacing. If your amplifier squeals, makes noise, loses gain, starts to hum, lacks dynamic sensitivity, or feels as if it is working against you, the preamplifier tubes may need replacement.

The power tubes are subjected to more stress than the preamplifier tubes. Consequently, they usually fail/degrade first. If deteriorating power tubes are not replaced, they will fail. Depending on the failure mode, they may even cause severe damage to the audio output transformer and/or other components in the amplifier. Replacing the tubes before they fail completely has the potential to save you time, money, and unwanted trouble. Since power tubes work together in an amplifier, it is crucial that they are replaced by a matched set. If you are on the road a lot, we recommend that you carry a spare matched set of replacement power tubes and their associated driver tubes.

After turning off the power and disconnecting the amplifier from the power source, carefully check the tubes (in bright light) for cracks or white spots inside the glass or any other apparent damage. Then, with the power on, view the tubes in a dark room. Look for preamplifier tubes that do not glow at all or power tubes that glow excessively red.

Whenever you replace the power tubes:

The output tubes of the Texas Tone Tweed D5E are self-biased 6V6S tubes, rated Ip:28 and TC 3430. When changing the output tubes, it is important to use a matched pair of high-quality. New JJ Electronic Double Mica 6V6S tubes are the recommended power tubes. The output section of the Texas Tone Tweed D5E is designed for long tube life. When the output tubes are replaced, we recommend that you replace the phase inverter tube as well. The phase inverter tube determines the shape and amplitude of the signal applied to the power tubes and must work as hard as the power tubes. The phase inverter on the Texas Tone Tweed D5E uses a high quality, low noise JJ Electronic 12AX7 tube.

You can check your preamplifier tubes for microphonics by turning the amplifier on, turning up the gain and tapping lightly on each tube with a chopstick or other light wooden dowel. You will be able to hear the tapping through your speakers, which is normal. It is not normal for a tube to ring like a bell after it is tapped. If it does ring, then it is microphonic and should be replaced. The first stage preamp tube in shock-mounted to reduce noise and microphonics. Remember to use only high quality, low microphonic tubes in the preamplifier section. Even though power tubes are rarely microphonic, you should check them anyway. The power tubes can be checked for microphonics just like pre-amp tubes.

Changing Tubes – Qualified Personnel Only!

NOTE: Do not touch any internal components of the amplifier. Tube amplifiers contain lethal voltages, *even when powered off and unplugged*. **YOU COULD BE KILLED!**

CAUTION: Tube replacement should be performed only by qualified service personnel who are familiar with the dangers of hazardous voltages that are typically present in tube circuitry.

To change tubes:

1. Ensure that the amp is at room temperature and unplugged. **Do not attempt to handle warm tubes!**
2. Carefully unplug the speaker cable plug from the chassis rear panel, and any foot pedal or reverb cables.
3. Unscrew the Phillips head screws holding the rear panel to the cabinet.
4. The preamp tubes are secured with spring-loaded shields. Carefully push down the shield along its axis and turn slightly counterclockwise. Then lift the shield from off the tube.
5. Do not attempt to turn or rotate the tubes!
6. The power tubes are secured with claw clips. In order to pull power cables, carefully use one hand to push the clips towards the chassis, and pull firmly down on the power tubes. Do not rock the tubes!
7. The tubes are keyed to only fit one way into the sockets. Using a silicone jar lid grabber, carefully pull the tube straight out. Avoid rocking the tube and getting fingerprints on the glass envelope.
8. Pay careful attention to the orientation of the tubes. The preamp tubes are 9-pin and only fit one way. The power and rectifier tubes are 8-pin and are keyed to only fit one way. The power tubes are keyed 180 degrees apart.
9. Only replace tubes with approved types. (See the section titled “Whenever you replace the power tubes” above).
10. Only replace preamp tubes with approved types. (See the section titled “Whenever you replace the power tubes” above).
11. Only use premium 6V6S power tubes.
12. Using a soft cloth or other carrier, carefully insert the proper tube into the correct socket, pushing firmly and straight until the tube is fully seated. Avoid rocking the tube and getting fingerprints on the glass envelope.
13. Carefully replace the shields, ensuring that any silicone rings are properly seated on the output tubes.
14. Re-install the rear panel and secure with the Phillips-head wood screws.

Survival Tips for Tube Amplifiers:

To prolong tube life, observe these tips and recommendations:

- Make sure the speaker(s) are properly connected prior to turning on the amplifier. DO NOT OPERATE THE AMPLIFIER WITHOUT A SPEAKER OR PROPER DUMMY LOAD ATTACHED. TO DO SO WILL DAMAGE THE AMPLIFIER.
- Allow the amplifier to warm up to room temperature before turning it on. The heat generated by the tube elements can crack the cold glass housing.
- After playing the amplifier, allow sufficient time for it to properly cool down prior to moving it. A properly cooled amplifier prolongs tube life due to the internal components being less susceptible to the damage caused by vibration.
- Match the impedance of your speaker cabinet(s) to your amplifier. Improper impedance matching will contribute to early tube degradation and may cause premature tube failure.
- Replace the output tube(s) before the performance degrades or the tubes fail completely. Check the tube(s) when you notice degraded performance.
- If the locating notch on the base of a power tube breaks off, replace the tube. This significantly reduces the risk of damaging your amplifier by incorrectly inserting the tube.
- Protect the amplifier from dust and moisture. If liquid gets into the amplifier proper, or if the amplifier is dropped or otherwise mechanically abused, have it checked out at an authorized service technician before using it.
- Proper maintenance and cleaning in combination with routine checkups by an authorized technician will ensure the best performance and longest life from your amplifier.

CAUTION: Tube replacement should be performed only by qualified service personnel who are familiar with the dangers of hazardous voltages that are typically present in tube circuitry.

Texas Tone Tweed D5E TECHNICAL SPECIFICATIONS:

Output Power Rating	12W RMS into an 8Ω load
Gain:	65Db Typical
Tone Controls	Single Tone Control
Internal Speaker	12” Jensen C12Q, 8Ω, 35W
Speaker jacks	8 Ohm internal speaker jack
Preamp Tubes	JJ 12AY7 ECC83S JJ (12AX7)
Power Tubes	6V6s JJ Electronic Double Mica Matched Pair
Rectifier	5Y3GT JJ Electronic
Power Requirements	120VAC, 60Hz
Size and Weight	(H) 16" x (W) 20" x (D) 9-1/2", 26 lbs.

The Texas Tone Tweed D5E is covered with a durable Tolex material: wipe it clean with a lint-free cloth. Never spray cleaning agents onto the cabinet. Avoid abrasive cleansers, which would damage the finish.

Specifications and information in this manual are subject to change without notice.

Texas Tone® is a registered trademark of Texas Tone Amps for tube guitar amplifiers.